

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte WIT CEZARY BUSHKO and SREEGANESH RAMASWAMY

Appeal 2006-3404
Application 10/601,715¹
Technology Center 2800

Decided: April 9, 2007

Before: KENNETH W. HAIRSTON, ALLEN R. MACDONALD, and
JAY P. LUCAS, *Administrative Patent Judges.*

LUCAS, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF CASE

Appellants appeal from a final rejection of claims 1-11 and 13-33 under authority of 35 U.S.C. § 134 (2002). The Board of Patent Appeals and Interferences (BPAI) has jurisdiction under 35 U.S.C. § 6(b) (2002).

¹ Application filed June 23, 2003. Appellants do not claim benefit under 35 U.S.C. § 119 or § 120. The real party in interest is General Electric Co.

Appellants' invention relates to a system for avoiding contact between an X-ray machine and a subject being imaged. In the words of the Appellants:

The present technique also provides a collision avoidance system for avoiding collision of a system component with objects is provided. The system comprises a collision avoidance array disposed on a face of the system component, the collision avoidance array comprising a plurality of plates configured to detect a presence of objects and generate a corresponding electrical signal. In addition, the system further comprises a multiplexer coupled to the collision avoidance array, the multiplexer configured to selectively couple the plurality of plates to a sensing circuit. The sensing circuit configured to sense the electrical signal and generate a corresponding electric field around the collision avoidance array to prevent the object from colliding with the system sub-component.

(Specification 2, second paragraph).

Claim 1 is exemplary:

1. An imaging system for sensing a presence of objects near the imaging system, the imaging system comprising:

a source configured for emitting a stream of radiation;

a detector configured for detecting a portion of radiation and impacting a detecting face of the detector; and

a collision avoidance array disposed on the detecting face of the detector and configured for sensing objects.

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Klotz, Jr.

US 5,651,044

Jul. 22, 1997

Watanabe	US 6,412,978	Jul. 2, 2002
Biegelsen	US 6,476,376 B1	Nov. 5, 2002

Group I: The Examiner rejected claims 1-5, 7, 9, 10, 13-24, 26, 27, 29, 30, 32, and 33 under 35 U.S.C. § 102(b) (2004) for being anticipated by Klotz.

Group II: The Examiner rejected claims 6 and 28 under 35 U.S.C. § 103(a) for being obvious over Klotz in view of Watanabe.

Group III: The Examiner rejected claims 8, 11, 25, and 31 under 35 U.S.C. § 103(a) for being obvious over Klotz in view of Biegelsen.

Appellants contend that the claimed subject matter is not anticipated by Klotz, or rendered obvious by Klotz in combination with Watanabe or Biegelsen, for reasons to be discussed more fully below. The Examiner contends that each of the three groups of claims is properly rejected.

Rather than repeat the arguments of Appellants or the Examiner, we make reference to the Briefs and the Answer for their respective details. Only those arguments actually made by Appellants have been considered in this decision. Arguments which Appellants could have made but chose not to make in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii) (2004).²

We affirm the rejections.

² Appellants have not presented any substantive arguments directed separately to the patentability of the dependent claims or related claims in each group, except as will be noted in this opinion. In the absence of a separate argument with respect to those claims, they stand or fall with the representative independent claim. *See In re Young*, 927 F.2d 588, 590, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991). *See also* 37 C.F.R. § 41.37(c)(1)(vii).

ISSUE

The issue is whether Appellants have shown that the Examiner erred in rejecting claims 1-11 and 13-33 under 35 U.S.C. §§ 102(b) and 103(a) (2004). The issue turns on a key limitation exhibited in claim 1, and in similar forms in all the other claims on appeal, namely “disposed on the detecting face of the detector.” Appellants assert that, “Klotz fails to disclose the capacitive proximity detection system being disposed on the detecting face of the detector assembly.” (Br. 10). Examiner asserts the contrary. Also at issue, especially with respect to claim 15, and its dependent claims, is whether the sensors for the detection system in Klotz are disposed on a substrate substantially in a plane.

FINDINGS OF FACT

Group I: Findings with respect to the rejection of claims 1-5, 7, 9, 10, 13-24, 26, 27, 29, 30, 32, and 33 under 35 U.S.C. § 102(b).

1. A careful reading of the claims in view of the issues raised in the Brief and Answer indicate the key limitation to be “...a collision avoidance array disposed on the detecting face of the detector and configured for sensing objects.”
2. The Klotz reference discloses “[a] capacitive proximity detection system for positioning a movable radiation imaging element support structure with respect to a subject includes a plurality of sensor plates disposed in a collar assembly around a portion of an imaging component disposed towards a subject....” (Klotz, Abstract).

3. Examiner has read the key limitation mentioned above on the Klotz reference as follows:

Klotz clearly shows in Fig. 2 that the collision avoidance array (formed at least in part by sensor plates 300 and focusing shield 400) is disposed on the detector face. Klotz illustrates this feature through the unlabeled structures securing the shield 400 to the detector face, where the detector face is the bottom of assembly 125, facing the subject, as described in col. 3, lines 38-40.

(Answer 10).

4. Reviewing the Klotz reference, especially Figures 2, 3A, 3B and 3, we note radiation detector assembly 125 which includes “the circular tube-like structure of collar assembly 130.” (col. 4, l. 46). Examiner asserts that the collision avoidance array of Klotz includes the sensor plates, 300, and the shield plate elements, 400, which are part of the sensor system, and help focus the electric field for improved sensing capabilities of the array. (Answer 11). This avoidance array is said to be “disposed on the detecting face of the detector.”

5. For purposes of examination, the Examiner may impart a reasonably broad interpretation to the claims, and need not read limitations of the specification into the claims. See *In re Zletz*, cited below under Principles of Law. Examiner is reading the radiation detector assembly 125 of Klotz as the claimed detector, including the part 130 that extends toward the subject, and the collision avoidance array to comprise sensor plate elements 300 and shield plate elements 400. We find this a

reasonable interpretation of the claimed elements, and find that the array is indeed disposed on the detecting face of the detector, as claimed. They are not taught to be on the back face in Klotz, but are found on the detecting end, the side facing the subject. Contrast this to the arrangement in Watanabe, where the sensor is disposed on the back face of the detector. We find this a permissible interpretation of the claimed language for the purpose of examination.

6. Claim 15 claims the detection system somewhat differently, as comprising “a plurality of sensors disposed on a substrate substantially in a plane.” Appellants argue that “[t]he sensor plates disclosed by Klotz are disposed so as to be conformal with the curved surface structure of tube like collar assembly [130].” (Br. 12) and “[t]hus, the Klotz reference fails to disclose a plurality of sensors disposed on a substrate substantially in a plane.” (Br. 12). However, Klotz describes the pattern of the plates as: “Sensor plate elements 300 are disposed around collar assembly in a sensing pattern 305 as illustrated in FIG. 3(C) (a cross-sectional view of one-half of the donut-shaped collar assembly cut along an equatorial plane).” (Klotz, col. 5, ll. 5-8). Examiner finds this a teaching of the claimed “substantially in a plane,” and we find the same. Appellants point out that the elements extend above and below the plane, as shown in Figure 3(C), but they are also in the plane as illustrated. The plates of Klotz “are suspended in a

dielectric material 134 such as polyimide...” (Klotz, col. 4, ll. 65-66) which can be read as the claimed substrate.

Group II and Group III

The claims of these groups have not been separately argued, and relate to the same issues considered above.

PRINCIPLES OF LAW

On appeal, Appellants bear the burden of showing that the Examiner has not established a legally sufficient basis for the rejection of the claims.

“In reviewing the [E]xaminer’s decision on appeal, the Board must necessarily weigh all of the evidence and argument.” *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

In sustaining a multiple reference rejection under 35 U.S.C. § 103(a), the Board may rely on one reference alone without designating it as a new ground of rejection. *In re Bush*, 296 F.2d 491, 496, 131 USPQ 263, 266-67 (CCPA 1961); *In re Boyer*, 363 F.2d 455, 458 n.2, 150 USPQ 441, 444 n.2 (CCPA 1966).

It is axiomatic that anticipation of a claim under § 102 can be found only if the prior art reference discloses every element of the claim. *See In re King*, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986) and *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984).

Our reviewing court states in *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989) that “claims must be interpreted as broadly as their terms reasonably allow.” Our reviewing court further states, “[t]he terms used in the claims bear a ‘heavy presumption’ that they mean

what they say and have the ordinary meaning that would be attributed to those words by persons skilled in the relevant art.” *Texas Digital Sys. Inc v. Telegenix Inc.*, 308 F.3d 1193, 1202, 64 USPQ2d 1812, 1817 (Fed. Cir. 2002).

ANALYSIS

Appellants have contended that Examiner erred in rejecting claims 1-11 and 13-33 under 35 U.S.C. §§ 102(b) and 103(a). Reviewing the findings of facts cited above, we found that the elements required for a rejection under 35 U.S.C. § 102(b) were present. Appellants’ arguments have been considered. We find the sensors of Klotz to be on the detecting face of the detector. Admittedly they are not of the same configuration as described in the Appellants’ embodiment described in their Specification, but the Examiner does not seem to have erred in describing the sensors as being on the detecting face in Klotz, within the common meaning of the term. Though not separately argued by Appellants, the Examiner did also present evidence in Watanabe of the sensors being on the face opposite the detecting face, as claimed in claims 6 and 28.

Concerning the second issue, the Examiner asserts that the plurality of sensors in Klotz are disposed on a substrate, the dielectric material 134, and are substantially in a plane. While it appears that a preferred embodiment of the disclosed invention confines the sensors to being only within that plane, we found that the Examiner did not err in reading the sensors of Klotz to satisfy the claimed language, being within the plane shown in Klotz’s Figures 3A, 3B, and especially 3C.

CONCLUSION OF LAW

Based on the findings of facts and analysis above, we conclude that the Examiner did not err in rejecting claims 1-11 and 13-33. The rejection of those claims is affirmed.

DECISION

The Examiner's rejection of claims 1-11 and 13-33 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv)(2006).

AFFIRMED

tdl/ce

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